

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Lawsonia inermis*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(20S)-3BETA-30-DIHYDROXYLUPANE	Bark	--	--		
4	1,2-DIHYDROXY-4-GLUCOSYLNAPTHALENE	Leaf	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
0	1,3-DIHYDROXY-6,7-DIMETHOXYXANTHONE	Plant	--	--		
0	1,3-DIHYDROXYNAPHTHALENE	Leaf	--	--		
0	1,4-DIGLUCOSYLOXY-2-HYDROXYNAPTHALENE	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	1,4-NAPHTHAQUINONE	Leaf	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
3	1,4-NAPHTHOQUINONE	Leaf	--	--		
0	1-HYDROXY-3,6-DIACETOXY-7-METHOXYXANTHONE	Plant	--	--		
0	3-BETA-HYDROXY-20-OXO-30-NORLUPANE	Plant	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
0	30-NOR-LUPAN-3-BETA-OL-20-ONE	Bark	--	--		
0	3BETA-30-DIHYDROXYLUP-20(29)-ENE	Bark	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	4-GLUCOSYLOXY-1,2-DIHYDROXYNAPHTHALENE	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	ACACETIN-7-O-GLUCOSIDE	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
32	AESCULETIN	Leaf	--	--		
5	ALPHA-IONONE	Flower	20	40		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	ALPHA-IONONE	Flower Essent. Oil	--	180000		
0	APIGENIN-4'-GLUCOSIDE	Leaf	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
0	APIGENIN-4'-O-BETA-D-GLUCOSIDE	Leaf	--	--		
0	APIGENIN-7-O-BETA-GLUCOSIDE	Leaf	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	ARACHIDIC-ACID	Seed	5375	11730	0.49255332125520745	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ARACHIDIC-ACID	Oil	--	96000		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ASH	Seed	47500	52780	0.14737696891241386	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ASH	Leaf	--	148000	0.5135573973094308	Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
1	BEHENIC-ACID	Seed Oil	--	16900	0.4016806247889112	
1	BEHENIC-ACID	Oil	--	17000		Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
1	BEHENIC-ACID	Seed	945	2065	-0.48479943048982227	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
13	BETA-IONONE	Flower Essent. Oil	--	720000		
13	BETA-IONONE	Flower	80	160	-0.5452962043746039	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
47	BETA-SITOSTEROL	Bark	--	--		
47	BETA-SITOSTEROL	Leaf	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BETA-SITOSTEROL-3-O-GLUCOSIDE	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
13	BETULIN	Bark	--	--		
13	BETULIN	Plant	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
22	BETULINIC-ACID	Bark	--	--		
22	BETULINIC-ACID	Plant	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
0	CARBOHYDRATES	Seed	671700	746330	0.8859597692080711	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	COSMOIIN	Leaf	--	--		
0	COUMARINS	Leaf	12700	21400	1	Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
3	CYNAROSIDE	Leaf	525	1500		
5	DAUCOSTEROL	Leaf	123	1000		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DIHYDROXYLUPENE	Bark	--	--		Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
0	EO	Flower	100	200	-0.41666386041507664	
30	ESCULETIN	Leaf	--	--		
0	FAT	Seed	56000	122220	-0.7541149139973352	
15	FIBER	Seed	335000	372200	1.874718165586639	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	FIXED-OIL	Seed	--	75000	-1.240735468629314	
12	FRAXETIN	Leaf	50000	100000		
1	GALACTOSE	Leaf	--	--		
62	GALLIC-ACID	Leaf	--	69000	1.5912684328301319	
7	GLUCOSE	Leaf	--	--		
0	HENNADIOL	Bark	--	26		
0	HENNOSESIDES	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	ISOPLUMBAGIN	Stem Bark	--	500		
1	ISOPLUMBAGIN	Bark	--	--		
0	LACOUMARIN	Plant	--	40		

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0	LACOUMARIN	Leaf	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
0	LALOISIDE	Leaf	--	7650		
7	LAURIC-ACID	Seed Oil	--	--		
0	LAWNERMIS-ACID	Seed	--	6		
0	LAWNERMIS-ACID-METHYL-ESTER	Seed	--	4		
1	LAWSARITOL	Bark	--	--		
1	LAWSARITOL	Resin, Exudate, Sap	--	80		
0	LAWSARITOL-A	Root	--	54		
26	LAWSONE	Seed	--	130		
26	LAWSONE	Leaf	4300	40000		
26	LAWSONE	Petiole	2500	25000		
26	LAWSONE	Bark	--	--		
0	LAWSONIASIDE	Leaf	--	1450		
0	LAXANTHONE-I	Leaf	--	100		
0	LAXANTHONE-I	Plant	--	--		
0	LAXANTHONE-II	Plant	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LAXANTHONE-II	Leaf	--	160		
0	LAXANTHONE-III	Plant	--	--		
0	LAXANTHONES	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
27	LINOLEIC-ACID	Oil	--	293000		
27	LINOLEIC-ACID	Seed	16415	35820	-0.6109242994855738	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	LINOLENIC-ACID	Seed Oil	--	40000	-0.8571140548720826	
0	LUPANE	Bark	--	--		Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
21	LUPEOL	Bark	--	--		
21	LUPEOL	Plant	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
78	LUTEOLIN	Leaf	--	29	-0.5868818953220738	
78	LUTEOLIN	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	LUTEOLIN-3'-GLUCOSIDE	Leaf	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)

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0	LUTEOLIN-3'-O-BETA-D-GLUCOSIDE	Leaf	--	1175		
2	LUTEOLIN-7-O-GLUCOSIDE	Leaf	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
18	MANNITOL	Leaf	--	--		
6	MYRISTIC-ACID	Seed Oil	--	--		
0	N-TRIACONTANOL	Bark	--	--		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
0	N-TRIACONTANYL-TRIDECANATE	Bark	--	--		
0	N-TRIACONTYL-N-TRIDECANOATE	Root	--	--		
0	N-TRIACONTYL-N-TRIDECANOATE	Leaf	--	--		
0	N-TRIACONTYL-N-TRIDECANOATE	Bark	--	--		
0	N-TRIACONTYL-N-TRIDECANOATE	Seed	--	--		
18	OLEIC-ACID	Seed	19410	42360	-0.6308761398796081	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
18	OLEIC-ACID	Oil	346600	347000		
13	PALMITIC-ACID	Oil	90700	91000		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	PALMITIC-ACID	Seed	5080	11085	-0.4708815318438094	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	PENTOSANS	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PROTEIN	Seed	50000	55555	-1.5855466027617497	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	QUINONE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	RESEDINE	Plant	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
0	RESIN	Leaf	20000	30000	-1.2544845011531556	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
44	SCOPOLETIN	Leaf	--	--		
8	STEARIC-ACID	Oil	157800	158000		
8	STEARIC-ACID	Seed	8835	19285	-0.1469710263684741	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	STEROLS	Plant	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
12	STIGMASTEROL	Leaf	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
14	SUCROSE	Leaf	--	--		
0	SUGARS	Leaf	--	110000	1.0793781366899218	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	TANNINS	Leaf	50000	100000	0.0706491892014639	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TILIANIN	Leaf	--	200		
1	TRIACONTAN-1-OL	Bark	--	--		
0	WATER	Seed	106000	106000	-0.4666571660641496	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	WATER	Leaf	--	90000	-3.5802814265384173	Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
6	XANTHONES	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	XYLOSE	Leaf	--	--		